



Program Manager Assembled  
Chemical Weapons Alternatives

## Overview: Mitretek Systems Analysis of Off-Site Treatment of Hydrolysates From Chemical Agent Destruction Pilot Plants

### A Partnership for Safe Chemical Weapons Destruction

# Information

As part of ongoing efforts to identify cost savings associated with the chemical agent destruction pilot plants in Colorado and Kentucky, the government tasked Mitretek Systems to conduct an independent analysis of potential cost savings of off-site shipment and treatment of hydrolysate, the byproduct of the neutralization process. The purpose of the study was to gauge the feasibility of off-site shipment, as well as public perceptions of the issue.

The Mitretek assessment involved three main tasks:

1. The development of six scenarios to assess the potential fiscal impacts of off-site shipment and treatment of hydrolysate. The scenarios were built to assess the financial implications of schedule delays caused by a variety of circumstances, such as potential litigation, the need to address additional regulatory requirements and possible difficulty contracting with a certified Treatment, Storage and Disposal Facility (TSDF).
2. The development of life-cycle cost estimates based on the scenarios described above.
3. Site visits to Colorado and Kentucky to identify stakeholder concerns and regulatory issues.

The Mitretek summary indicates that there are no significant cost advantages to off-site hydrolysate treatment for either Colorado or Kentucky. A variety of reasons are cited to support this conclusion, such as permitting requirements and complications, the limit of available TSDFs, the potential for political opposition or litigation, and stakeholder concerns.

In January 2007, the Program Manager Assembled Chemical Weapons Alternatives (PMACWA) provided the Mitretek analysis to the Colorado and Kentucky communities to assist in ongoing discussions about off-site shipment and treatment of hydrolysate. While the Mitretek analysis offers important considerations, other estimates exist that show off-site shipment could save the Blue Grass and Pueblo projects approximately \$150 million each over the lifetime of the program, if regulatory and community support could be realized. As stewards of taxpayer dollars, PMACWA will continue to share information to engage the Colorado and Kentucky communities in an effort to reach a determination on the viability of off-site shipment of hydrolysate.

#### **What is Mitretek Systems?**

"Mitretek Systems is a non-profit scientific research and engineering corporation with a unique mission to help our clients solve complex technology, systems and infrastructure problems in ways that truly benefit the public. We are senior-level scientists, engineers, researchers and technology experts with deep, multi-disciplinary technical expertise in sectors that are essential to our nation's well being: criminal justice, homeland security and public safety, the environment, health care, energy, transportation, and telecommunications."

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